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Eye Wandering the Ceiling: Ornament and New Brutalism

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Eye Wandering the Ceiling: Ornament and New Brutalism

We are in a room looking upwards at a ceiling and across towards two sash windows. (Fig. 1) Any objects of use are in the bottom left of this room: an angle-poise lamp, a coat hanger, and a blackboard. Half of our view is filled with the ceiling and its pattern of black marks on white. Black and white is a presumption here, of course, but from what we can see of the walls of the room three areas of the same colour as its own ground fringe the ceiling. 'Pattern' is another presumption, and one that seems increasingly dubious the more carefully we look. The marks are mainly lines of different widths (somewhere between a few millimetres and a centimetre or so) and various kinds and sizes of dot or blotch, mostly circular but occasionally more rectangular. Across the ceiling these marks sometimes coalesce into dense and complex thickets and sometimes separate out, freeing up areas of white. And at some of the ceiling's edges the marks refuse contact with the walls, suggesting the vignette effect of a cubist painting. As one looks across there are indications of a grid, but at the same time it appears irregular and inconsistent. Perhaps areas have been deleted to open up the blank areas. Perhaps components of a grid have been bent into curving lines or pulverised into dots. Perhaps it is a depleted grid or one half built, abandoned. There are also small empty enclosed forms made by the black marks. And, finally, there are sharp angled Vs and notch-like shapes, both affiliated to the family of dots and lines. So how much of this is a pattern? If this is ornament in any sense, then should it not organise complexity, should its marks not be a form of mediation between the room's geometries and the users of its lamp and coat hanger and blackboard?

Visible near the top of the photograph, towards its right corner, is a thicker line a few inches long with two triangles at its right end. This is surely the same shape we can see at an angle of 30 degrees away in the top centre of the photograph, which has similar marks around it. Normally in wallpaper, when we see one repeat we expect another, both in one roll and across other adjacent rolls; the medium implies a pattern replicated into infinity. This is not the case here. Where that more central shape has four small dots in a kind of clearing to its left, the shape in the right corner has the clearing but not the dots. Similar intimations of a repeat pattern occur elsewhere. In another photograph of the ceiling, looking towards the room's innermost wall, we can see at least seven Paisley-like shapes. (Fig. 2) This is a ubiquitous motif in decoration, and here each iteration contains a skewed circle of dots and, alongside it, a black rectangle and triangle. Each time the motif is replicated it is rotated through either ninety or a hundred and eighty degrees. The repeat is further denied by the failure of other marks within the neighbouring configuration to conform. Like the grid, these suggestive repeats and the patterns they produce have either been occluded or they are still emerging. Grid and repeat – grid as purposive geometric pattern, repeat as the pattern produced by reproduction – are faced by their opposites: shapeless scatter and unique mark. As well as order and regularity, there is non-containment, unpredictability, and disorder. Neither side wins out.

In the nest

These photographs were taken by Nigel Henderson (1917-1985) and they show ceiling paper created in 1952 by Eduardo Paolozzi (1924-2005) for Ronald Jenkins (1907-1975). Jenkins was a founding partner in the engineering practice of Ove Arup, and this is his workplace in Arup's Fitzrovia office in London. It is an engineer's

room with the significant equipment of ambition. The blackboard shows a section of a building, a diagram of load and structure, and on the back wall in the second view is a photograph of the north-east corner of Le Corbusier's Marseilles Unité d'habitation. As much as a light source, the bare bulb is a sign of functionalism, an emblem of association with the polemics of *objets types*, *Sachkultur* and the machine aesthetic of the 1920s. Somewhere in the office, doubtless, lay a copy of Jenkins's *Theory and Design of Cylindrical Shell Structures* (1947), its pages perhaps open to show its dauntingly complex equations, some equivalent to the opaque pattern above.¹ This, then, is an intellectual engine room for those 'eyes that see', the engineers who were helping modernist architects rebuild the depredated postwar world.

The ceiling paper was one part of a refurbishment of this room commissioned by Jenkins.² An opening evening was announced for 23 May 1952, listing 'A ROOM/ Cabinet – Victor Pasmore/ Ceiling – Eduardo Paolozzi/ Interior Design – Alison and Peter Smithson/ Occupant – Ronald Jenkins.'³ Seen as part of this cross between installation and office design, one not without a certain stiff humour, the ceiling was separated by the Smithsons' white walls from the carefully poised room below.⁴ In the photographs the ceiling's animation disturbs this laboratory-cool room; it appears like something between a skein of gathered nets and the scrawls and scratchings of some form of frenzy – in short, an ornamental excrescence. The ceiling allows neither an escape from the room nor a place of peaceful meditation. It pulls the eye towards it, only to refuse any form of resolution. A useful term for this might be 'parafoveal', which in experimental psychology indicates an inbetween zone, on the edge of our attention, neither foveal (in focus at the centre of our attention) nor entirely perifoveal (or peripheral). There is something exemplary, even instructive about the parafoveal presence of Paolozzi's ceiling, as well as Henderson's photographic interpretation of

it, and this provides the premise of this article. For another collaborator, Anton Ehrenzweig, as we will see, the question of ornament was essential to his evolving theories of the psychoanalysis of perception. The ceiling returns ornament to modernism, but does so under radically different terms.

In 1952 Henderson and Paolozzi were both core members of the Independent Group, a loose collection of young artists, architects and writers, self-consciously third generation modernists encouraged by older, established modernists like Herbert Read and Roland Penrose who ran the new Institute of Contemporary Arts (ICA) in London.⁵ The Independent Group had few of what are taken as the usual attributes of an avantgarde group. There was no leader, no manifesto, no single style, no public statements authored by the whole group, no magazine, and, despite much collaborative work, nothing we could recognise as a collective exhibition.⁶ Even the group name for these cuckoos invited into the nest of modernism was merely a matter of internal ICA convenience.⁷

Reyner Banham's 'The New Brutalism' (1955) was the most coherent guide to the Independent Group, pointing to a battery of defining concepts and a constellation of New Brutalist artworks and buildings, including odd bedfellows like Le Corbusier's Ronchamp chapel and the drip paintings of Jackson Pollock. Much has been written about these concepts - 'as found', 'the image', 'clear exhibition of structure' – but it is through those terms and frameworks Banham only gestured at that the hidden problematic of ornament can re-emerge into our consideration of New Brutalism. This article turns, therefore, to three definitional aspects of the movement that Banham flagged but did not develop: its close ties to the 'New Art-History'; the exhibition *Parallel of Life and Art* as a *locus classicus* of the movement; and the concept of 'topology', which had resonances beyond its mathematical usage.⁸ All

three are concerned with boundaries – disciplinary, medial, spatial – and as such they all bear implicitly upon ideas of ornament and the decorative. Thus the ‘New Art History’ of the time suggests ways in which perceptual psychology offered new understanding of the visual and bodily status of ornament; *Parallel of Life and Art* demonstrates the cognitive acuties and physical changes implied by the congested image-world; and topology - spatial relations organised or understood as part of a new, aformalist aesthetic - helps articulate how the often peripheral location of ornament affected its apprehension. All three will be addressed in what follows.

In their self-mythology, the caesura of totalitarianism and war had separated this New Brutalist generation from the ‘heroic’ modernists of the 1920s. The separation brought with it productive anachronisms, temporal foldings that could both estrange modernism and make it truer to itself. The idea of ornament in crisis was one of these, although historians have not previously recognised it in New Brutalist work.⁹ Concepts of ornament and decoration had become interchangeable in the nineteenth century, treated as transferable as much across materials as across historical periods and styles.¹⁰ This, as much as any economic argument, was why modernists regarded ornament as surplus to a new age in which architecture and the applied arts would be reconnected with their technical and material conditions. Walls and ceilings were the surfaces from which ornament was first removed.¹¹ In some ways, then, Paolozzi’s ceiling paper exemplifies a typically neo-avantgarde salvaging of the anachronistic or despised, putting it back to work with modernism.¹² This is not to argue that modernist architectural issues of the 1920s were always central to the Independent Group, but it is to claim their pertinence for a commission where many of the collaborators – the Smithsons, Jenkins, Arup – were architects or engineers, and where the very space itself was an engine room for modernist postwar reconstruction.

The ceiling paper, I want to suggest, engages with all this through its concern with the condition, even the ontology, of boundary, as well as related issues like detail, repetition, and the relation between mark and surface. Ceiling, ornament, and wallpaper are all put at stake or thematised here.

Paolozzi himself was fascinated by the suggestiveness of ornament and how it might throw off its irrelevance. In 1960, talking of the shapes of *objets trouvés* cast into his bronze sculptures of the previous few years, he commented:

many people believe erroneously that these details in my work are a kind of superimposed decoration, like accessories or even gags that are not essential to the appearance of the whole sculpture. But this whole must owe its fantastic, magical or haunting appearance to the very variety and accumulation of its crowded details. These are essential to the whole, like the choice of tattooings on a man's body.¹³

The idea of ornament as falsehood is conjured up, of ornament as gewgaw obscuring true modernist form, only then to have the shibboleth embraced. Inessential appearance is actually 'haunting appearance'; 'crowded details' matter more than the sculpture as whole. Having essentialised the accumulation of detail, Paolozzi's tattooing analogy pricks the modernist (or Adolf Loos follower) further, for it is the 'choice' of flesh stain that matters, identifying thereby the body as a self-created and self-deliberated artefact, while dismissing in one simple move the pathologised body as much as any Kantian purposiveness of form.¹⁴ It is hard to imagine any statement resonating with such sharp and knowing precision against modernism's, particularly architectural modernism's, anti-ornamental rhetoric.

The sky ceiling

Le Corbusier's Pavillon de l'Esprit Nouveau of 1925 provides a reminder of how ceilings and matters of ornament were treated thirty years before by one of those heroic modernists, and in a work that was prominent in the minds of Independent Group members.¹⁵ (Fig. 3) Famously conceived as a manifesto of the interior, the pavilion explicitly performed 'the rejection of decorative art'.¹⁶ The ceiling's role in this manifesto performance is muted and implicit. The pre-modernist ceiling or the Art Deco ceiling is the counter-pole here, a surface supposedly invested with symbolic intensity in the way it decoratively crowns the room below. The Corbusian ceiling rejects this but is no less symbolic. As presented in the photographs of the 1910-1929 volume of Le Corbusier's *Oeuvre complète*, the ceiling of the Pavillon we see most of is that above the dining area, painted a '*plafond bleu*' in contrast to neighbouring walls of white and brown. The ceiling is entirely bare; not even a light fitting is suspended from it. Seeming to indicate this ethereal emptiness, a large globe is placed at the rear of the space and, positioned just above a small window, the fuselage of a model aircraft points upwards or skywards. Le Corbusier wanted his blue to recede or 'yield',¹⁷ so despite its apparent darkness in the contemporary black and white photographs, the inference is that he wanted the colour to indicate immensity, the infinite space of the heavens. The ceiling is therefore more than just background to the objects, paintings and equipment-like furniture in the pavilion; it plays its part in the *promenade architecturale* and in what he famously called 'the masterful, correct and magnificent play of volumes brought together in light.'¹⁸ Yet, here and elsewhere, it is the ceiling that is of least interest to Le Corbusier.¹⁹ It is rendered inactive so that it does not bear down, fix or stultify the mobile world of

Corbusian objects and human bodies below. The most telling indications of this are the little line sketches of interiors drawn by the architect at this time: while the floors are usually populated with tiles, rugs, or furniture, ceilings are an absence, often only defined at the points where the walls meet them.²⁰ It is as if the houses have no ceilings at all; rooms are open to a sky fitted to their shape. Similarly, when we see a photograph of a roof garden in the *Oeuvre complète*, it is as if the sky may as well be the ceiling.

As for ceilings, so for wallpaper. In the 1920s Le Corbusier opposed decorative wallpaper as a Loosian crime. It was '[an] obsession with confusing designs... architectonic forgery that allows... shameless fickleness... [it carried] the very crimes of the first wave of mechanisation, rubbish, pomp, bluff, deception.'²¹ Of far more potential was the use of the modern medium of photocollage to articulate whole walls. In the so-called '*salle courbe*' of the Pavillon Suisse, for example, forty-four panels covered an area eleven metres wide by four metres high. (Fig. 4) The panels represented sand, tree trunks, roof tiles, rocks, and various 'microbiological and mineralogical landscapes'.²² Their function was not decoration, so Le Corbusier emphatically claimed, but animation.

Le Corbusier was interested neither in the cultural and historical meanings and uses of ornament, nor in its ontology. All such concerns were superseded in favour of uninterrupted wall surfaces or the animation of photomurals, neither of which had anything to do with the manufactured repetitions, the fickleness and fakery of wallpaper. The Corbusian ceiling, similarly, was a neutral or at best an etherealised zone. It stood for a world seemingly placed beyond the pulse of mass production and the activation of desire by the commodity, for both of which the endless seriality of ornament was symptomatic.²³

In the early 1950s, by contrast, the ceiling, as well as objects placed on and near it, achieved a certain shortlived currency for the Independent Group. Mirrors are used in several of Nigel Henderson's photographs to conflate and juxtapose different decorative planes of the domestic interior, including the ceiling. In another set of photographs Henderson was drawn to the upper parts of market stalls, their wares hanging from rudimentary superstructures that act as portable canopies both for the objects for sale below and for the urban scene framed by them. (Fig 5) Paolozzi designed a curious, seemingly free-hanging 'ceiling canopy' for the *Tomorrow's Furniture* exhibition at the ICA in 1952, its ornament far better behaved than the work he did for Jenkins.²⁴ (Fig. 6) As will be shown later, the ceiling is a famously energised area of display within the 1953 exhibition *Parallel of Life and Art*. In the Section 6 exhibit of *This is Tomorrow* (1956) the ceiling becomes both transparency and object rack in the 'light box – for the hearth and family' that is the plastic corrugated roof of the pavilion, 'decorated' with objects.²⁵ The ceiling was clearly important to Richard Hamilton's 1956 collage *Just What Is It That Makes Today's Homes So Different, So Appealing?*, where the room's upper limit is replaced by a photographic image of the moon. And, of course, there was also Paolozzi's ceiling paper for Jenkins. This thematic currency of the ceiling in Independent Group work was accompanied by little overt commentary, as if its implications could not yet be articulated; and it has remained, to use an aptly skewed metaphor, above the radar of attention. It had some precedents in constructivism and in the work of Moholy-Nagy, whose book *Vision in Motion* (1947) was well-thumbed by Independent Group members. However, more than Moholy-Nagy's international modernist space-time meditations, the ceiling's appeal was that it allowed two concerns to intersect for the Independent Group: from one side the credibility of ornament as a revived

problematic; from the other, the psychology of perception, including the embodied place of the viewer in perception.²⁶

The terrain of ornament

Elsewhere in Britain this was also the moment when ornament evoked science, and when scientific materials were arranged ornamentally. Much of the Festival of Britain in 1951, for instance, was dressed with the designs of the Festival of Britain Pattern Group, which fostered the use of scientific images in design. (Fig. 7) There were crystal structure patterns on wallpaper, molecular schemata on wall tiles, machine-embroidered lace and carpets based on insulin, and dress prints inspired by afwillite.²⁷ Atomic diagrams, writ large as architectural screens, signaled the benefits of nuclear energy, not its recent destructive effects.²⁸

The Independent Group was partially drawn into this. The ICA's contribution to the Festival was to commission the exhibition *Growth and Form* (1951), curated by the painter and Independent Group member Richard Hamilton. (Fig. 8) His exhibition posited a stimulating relation between art and science, inspired by the work of the embryologist D'Arcy Wentworth Thompson. This was to be a convergence of spheres of interest enabled by the recognition of a common concern with pattern and growth. But while *Growth and Form* presented an expanded world, from the micro- to the macroscopic, at the same time it was a world compartmentalised and contained by the internal logic of its display.²⁹ As an exhibition strategy it worked through the means of 'grid, collage... photograph' as well as objects,³⁰ all participating in a process less of surrealist juxtaposition than of layered conflations.³¹ Hamilton's curatorship, here and elsewhere, tended towards tight curatorial agendas and elegant modes of display.³² This elegance shared much with Francesco Gnechi Ruscone's *Studies of*

Proportion exhibit at the 1951 Milan Triennale, and Gyorgy Kepes's *The New Landscape* at MIT in the same year. In both these exhibitions some images were oriented horizontally as mini-ceilings within the gridded displays. This device, as in *Growth and Form*, was one way that materials on display were inclined towards the ornamental, or ornament-like. *Growth and Form* also used wall-sized photographic prints to animate the display, as in Le Corbusier's *salle courbe*. All three exhibitions, as well as Hamilton's other exhibitions, were positive about the art-science continuum, even to the extent of returning to ordinary consumption subject matter that, within very recent memory, had associations with wartime violence and trauma.³³

To become ornamental was the key here; it was the way, we might say, to make art and science articulate together. *Growth and Form* was really not far from the explicitly decorative use of scientific materials in the contemporary Festival of Britain. Take, for instance, the photograph of an alite crystal used to 'ornament' a curved screen containing recesses (visible to the left of Figure 7), or the film of crystal formation projected onto the ceiling, both of which epitomise the exhibition's intention of impacting on design as much as on art. The effect, as with Kepes and Ruscone, was to create a consistent language of display but to deny the material's use-value as historical document or scientific evidence, to cut it from the contexts of experiment or knowledge production.³⁴ In other words, these materials were given a status that was not solely about knowledge or wonder, but also about visual patterns as part of the designed object that was the exhibition.

Gestalt theory was the means by which the psychology of perception was related to this art-science continuum. A consensus was reached at this moment between certain art writers and scientists around gestalt theory, and this was expressed

in the symposium and book that accompanied the *Growth and Form* exhibition.³⁵ Influential since the 1930s, gestalt theory proposed that humans were hardwired to find order and shape in the visual world: to distinguish figure from ground, to discern cohesion rather than chaos, and to prefer simplicity even when there was no previous experience of a particular visual configuration. Herbert Read outlined what was at stake. Art over the centuries had used formal structures that had natural correspondences, the Golden Section among them. More recently, through gestalt theory a different kind of art-nature relation had emerged based on the idea of perception as itself ‘a pattern-selecting and pattern-making function’.³⁶ Not so much an art-science parallelism, gestalt theory pointed to a perceptual universe in which recognisable formal arrangements existed everywhere.³⁷

This consensus itself provoked some Independent Group members to oppose the happy marriage of art and science around gestalt theory and to find alternatives. Among psychophysical theories, James J. Gibson’s *The Perception of the Visual World* (1950) emphasised the difference between an embodied encounter with objects (the ‘visual world’) and seeing the world as picture (the ‘visual field’): one was based on stimulation, the other on attitude.³⁸ Of all the intricacies of vision, Gibson was particularly concerned with object deformation during movement of the observer, and his study was initially motivated by the problem of calculating the landing of airplanes on landing strips during adverse conditions. (Fig. 9) The aviator approaches an area almost parallel to his line of flight and must be able to recognise its features and then to organise his descent. Gibson’s so-called ‘ground theory’ explained what was happening: ‘visual space should be conceived not as an object or an array of objects in air but as a continuous surface or an array of adjoining surfaces’, constantly scanned by the eye. Thus ‘the spatial character of the visual

world is given not by the objects in it but by the background of the objects'; not, therefore, the air through which the pilot flies but the deformations of the ground and the horizon caused by his velocity, as well as the varying visual stimulations they provoke.³⁹

Gibson's approach certainly appealed to Hamilton for what it had to suggest about vision in motion, but it might also have appealed to Henderson and Paolozzi for its experimental and edgy qualities as much as its anti-gestalt implications.⁴⁰ And the illustration of Gibson's theories with images of greater or lesser granularity and with wartime subjects rendered oddly neutral might have been part of this appeal.⁴¹

Henderson, with his wartime experience as a pilot for Coastal Command, was already fascinated by 'how the particular fell away at a certain distance from the earth and that the same kinds of markings ran through the terrain as ran through bits of tissue seen under a microscope.'⁴² This sense of flight as an expansion and contraction, of near and far as a relay of incarnated experience surrounding the body, suggests the airborne visuality of Gibson more than gestalt theory with its aversion to both embodiment and experience. Opposed to any clinging to coherence, it is the spatial complexity of seeing that is at stake, the warping, folding, and collapsing of proximity and distance, including, as Gibson indicated but did not follow through, what happened when the moving observer looked upward. (Fig. 10) Gibson's 'visual field' is not infused with the God-like patterning of gestalt, the yielding of everything to discernable form, but instead is a world rendered into markings and textures within constantly adjusting relations of distance, one where we can flick between the world as picture and the world as object. Surrender and control are constantly, thrillingly close. For Gibson the point, of course, was to understand and instrumentalise these sensations; for Henderson and Paolozzi, both with their own wartime traumas, the

point was to work back through them to retrieve and remake modernism in a postwar context where pattern's relation to destruction had to be acknowledged.⁴³

A locus classicus, a cave of images

The Independent Group's exhibition *Parallel of Life and Art* can be understood in part as a riposte to *Growth and Form*.⁴⁴ Certainly, from its early planning, *Parallel* was more oblique in intention and more genuinely experimental, its resonances less confined; it included some of *Growth and Form*'s imagery but to very different effect. For the organisers – Paolozzi, Henderson, the Smithsons, and Ronald Jenkins – visual matter displayed both on the upper parts of the gallery and overhead seemed to offer not only the chance of 'association and... fruitful analogies',⁴⁵ but also a fundamental challenge to modes of perception. Two thrusts, one architectural the other more about immersive viewing, can be discerned in the early planning of the exhibition. The first came from the Smithsons and was more manifesto-like – '[to] present the opening phase of the movement of our time and record it, as we see it now, as did the Esprit Nouveau Pavilion in 1925'.⁴⁶ *Parallel* was thus to be an equivalent to Le Corbusier's pavilion, but geared at capturing the new forms or experiences of modernity thirty years on. The other thrust, from Henderson and Paolozzi, can be seen in their early studies for the exhibition and demonstrates how this 'movement of our time' was conceived in terms of relations between ornament, space and body. In one study, a grid-like display structure holds collaged photographs of fragments from Henderson's photography as well as photographs of Paolozzi's sculpture and prints.⁴⁷ (Fig. 11) The display format may still be *Growth and Form*'s, the tatterdemalion content is anything but. If this is about pattern, it is not the differentiated and ultimately always recognised and therefore palliative or even redemptive form of gestalt. Instead, any

patterns here are uneven and irretrievably fragmented, unraveled and scattered by the action of time, threadbare and thread-loose. Warped objects are invoked as much as warped modes of viewing; and this warping appears to mock the collaged viewers, who peer as if in imitation of museological diagrams.⁴⁸ In another study, Henderson and Paolozzi arranged their images on two levels. (Fig. 12) Without even the studious viewers of the first study, an even more profound spatial disorientation ensues. Are these to be two opposite walls? Two levels of images on the same wall? Or Is this, after all, just a picture, a flat plane? Among the photographs on Paolozzi's level is an image of the Jenkins ceiling, not only showing how ceiling and exhibition projects were entangled, but also suggesting another level of spatial play as the image of the ceiling, like an anthropoid pediment, is placed so it holds up another, smaller photograph.⁴⁹

Parallel took forward the spatial disorientations of Paolozzi and Henderson's initial studies into its final form. As exhibited, it consisted of 122 photographic panels, without text or caption (except in the gallery guide), each panel plugged with brass eyelets so that it could be hung from wire strung across the ceiling. (Fig. 13) The panels were thereby arranged largely in the upper parts of the gallery, 'leaving the lower area free for normal use.' The panels consisted of 'documentary photographs' intended to '[demonstrate] extraordinary parallels between art and various aspects of reality, many revealed only by the camera, microscope or X-ray.'⁵⁰ The selection of many images superficially evokes Le Corbusier's *salle courbe*,⁵¹ but there are important differences. First, it is as if the gridded photomural, or the gridded *Growth and Form* display for that matter, had been separated out and dispersed higher up and more loosely in the gallery. (This is what Henderson, no doubt enjoying the term's estranging appropriation, termed 'transparency'.)⁵² Second, the photographs

are now not so much animating the wall but come to independent life as expressive entities, driven by an excessive principle of juxtaposition and cross-relationship that the common photographic medium and the common zone of the ceiling can barely contain or unify. Scientific imagery is placed in an ornamental zone but it is not allowed to settle into ornament; it is jostled and relativised by other imagery of masks, maps, bodies and machines. A horizontal 'ceiling' provided with a map of Pompeii vies with a section through cell papilloma.

There is also a new element of corporeal implication in the topology of *Parallel*. 'As the spectator shifted [his] gaze', in Henderson's description, 'he moved into a new set of relationships.'⁵³ The walls and ceiling are still there, but so too are panels that make their geometries redundant; similarly, meaningful image (from science, say) is elided by an impulse to re-make it as ornamental or, at least, as part of an embodied aformalist experience. One guide, and it was also picked out by Banham from among many candidates, is the prominent image of young gymnasts.⁵⁴ Like them, to see anything in the display is to contort: to stretch the head back, to stand on tiptoe, to rotate the body according to the different positions and orientations of the images. Far from a place for the vacating of ornament, for the triumph of geometry, the ceiling has become a parallel world, a 'cave of images' to which the viewer makes relational adjustments,⁵⁵ even a 'new visual order'.⁵⁶

Eye wandering

Let's return to the Paolozzi ceiling paper. We know a little about how this ceiling, 18 foot by 16 foot large,⁵⁷ was papered. The workmen who laid it were given a certain autonomy 'to put up the rolls of paper at random so that accidental joins were produced'.⁵⁸ Also, as one collaborator noted, 'Paolozzi made silk-screens that could

be overprinted on top of each other in almost any position. They would always produce meaningful results.⁵⁹ Chance juxtaposition worked together with the repetition of multiple prints; pattern was reconfigured by accident, or at least at the whim of third parties relieved briefly from their alienated labour. The treatment of previous prints and drawings as cut up material for collage is common in Paolozzi's work at this time, and the ceiling probably also had marks made directly on it, for, so we are told, 'Paolozzi touched up a few roughnesses'.⁶⁰ The point was to create effects on the ceiling that were not repeatable, while still evoking the mass-produced seriality of decorative papers. It is this relation of two registers of production (the serial and the unique) as well as of two forms of engagement (embodiment and perception), that we can now consider further.

As well as Paolozzi, Henderson and Jenkins, there was a fourth person who was vital to contemporary conceptualisation of the ceiling paper. Anton Ehrenzweig (1908-66) is better known now for his book *The Hidden Order of Art* (1967), which had an acknowledged influence on the American artists Robert Morris and Robert Rauschenberg through its concept of 'dedifferentiation', the refusal to see differentiated shape and in particular the pointed refusal to see gestalt.⁶¹ Ehrenzweig was a Viennese lawyer who came to Britain after fleeing the Anschluss in 1938. With the move he abandoned his previous career and after briefly working in the textile industry he turned to teaching and art theory, developing the psycho-analysis of perception for which he is still best known. In the early 1950s he was in contact with Ernst Gombrich and taught with Independent Group artists like Paolozzi at the Central School of Art. Ehrenzweig was a direct collaborator with Paolozzi, he taught screen-printing to the artist and helped with the printing of the paper for the ceiling, and he is the source for our knowledge of how the ceiling paper was printed and laid.

Ehrenzweig was also intellectually close to Paolozzi in this period and owned several of his works, as well as a particularly interesting photograph of the ceiling paper.⁶² (Fig. 14) Almost certainly taken by Nigel Henderson, this shows a stocky figure in shirt sleeves, Paolozzi himself, holding a small rectangular mirror against a window. While the sculptor is shown reflected in the window, the mirror he holds is tilted slightly back towards the glass so that a reflection of the ceiling above and behind the viewer fills the mirror's frame. The photograph makes a typically Hendersonian point, key to Paolozzi at this moment too: what is outside our frame of vision is now framed within it, horizontal and vertical planes are brought into conjunction by an optical effect serving as a kind of real-time/real-space collage: the ceiling is neither mute nor neutral. The depleted grid of the reflected paper is also set against the grid-like windows of the façade beyond, so that the sky (*pace* Le Corbusier) and the decorated ceiling are made proximate.

The photograph might perhaps serve as an epitome of Ehrenzweig's theory. His book *The Psycho-Analysis of Artistic Vision and Hearing* (1953) was concerned with the kind of perceptual attention (or inattention) that preserves formless chaos and avoids or resists gestalt. Rather than patterning and structure pregnant with meaning, this attention instead enjoys dispersal, disassociation, and thus 'the unbeautiful gestalt-free vision of the unconscious.'⁶³ Instead of the gestalt theorists' insistence on the psychological organisation of the world's phenomena, then, the mind for its own reasons accepts the unfocused, the ambiguous, and the serial; the mind suspends recognition, judgement, precedent and memory. Gestalt theory, according to Ehrenzweig, only makes sense of certain areas of the visual field, privileging them at the expense of other areas, 'those inarticulate form elements hidden in the unconscious structure of a work of art.'⁶⁴ Gestalt recognition worked as a super-ego

of the visual field,⁶⁵ but a ‘suspended’ or more ‘diffuse attention’,⁶⁶ an ‘eye wandering’ alert to accidents and details, enabled a way of registering the unconscious in a radically different manner from the ordered storehouse of gestalt theory.⁶⁷

As well as artistic practice, this also had implications for ornament. Gestalt-free forms, Ehrenzweig argued, could be found in Celtic interlaced ornaments which ‘lack the compactness or simplicity of a pregnant gestalt’, and did not have quite the ‘distressing effect’ of gestalt-free perception in modern art.⁶⁸ Here larger organising patterns may be discerned without being able to distinguish zoomorphic elements from the interlace pattern. Even more relevantly, Ehrenzweig saw wallpaper as a gestalt-free medium that had perceptual ambiguity structured into its decorative place and function: ‘A good wall-paper pattern must avoid a precise picture-like structure. What would happen if it possessed the eye-catching quality of a picture? The eye would not be attracted only once; through the uniform repetition of the pattern all over the wall the same pregnant picture would obtrude itself ad nauseum, as often happens with Rococo tapestry where the same sentimental scene hits our eye wherever we try to look in order to avoid it.’⁶⁹ This certainly has echoes of the familiar design reform argument (that had raged after 1851 and again after the founding of the Council for Industrial Design in 1944) about propriety or truth to medium, but the point about the need for a healthy variegation of zones of attention goes much deeper. Wallpaper had to be a neutral background to other things – furniture, pictures, views through windows – and therefore ‘we might look absent-mindedly at a wall-paper a hundred times without once realising what its pattern represents.’⁷⁰ But wallpaper might also share qualities with certain kinds of modern painting: ‘the lack of eye-catching features... the equality of single forms... the same

superimposition and overlapping of forms.’⁷¹ This is not the American critic Harold Rosenberg’s ‘apocalyptic wallpaper’, a term he used at this time to warn of the dangers of avantgarde art’s critical purpose – the ‘allover’ qualities of a Jackson Pollock, for instance – becoming commodified.⁷² A tamed, merely decorative apocalypse would result from ‘the artist [accepting] the permanence of the commonplace and [decorating] it with his own daily annihilation.’⁷³ The New Brutalists accepted Rosenberg’s warning but also upturned its assumptions: ‘if the entire world is potentially “*informel*”,’ as Ben Highmore has explained, ‘then wallpaper as a sign of the extension of the “*informel*” into the domestic environment might be the very thing you want to embrace’.⁷⁴ One might add that the New Brutalists embraced the ambiguities of ornament too, specifically because such ambiguities allowed exploration of perceptual phenomena. And when Ehrenzweig illustrated his argument using his own drawing after Picasso with its ‘lack of eye-catching features and form ambiguity’,⁷⁵ he did so with no fear of making commodified wallpaper out of the Picasso or implying a diminution of affect by association with the decorative. (Fig. 15) With its delimited formal language and its widely separated heads, much of the drawing is held ambiguously between repetition and unique incident, between the consequential and the inchoate. There is a decorative disorder; ‘superimposition and overlapping of forms’; bad gestalt, or almost so.

Ehrenzweig’s interest in gestalt-free configurations and in ornament raises the possibility that the ceiling paper is an experiment in his ideas, carried out collaboratively with Paolozzi both at an intellectual level and in terms of physical cooperation.⁷⁶ At times in *The Psycho-Analysis of Artistic Vision and Hearing* Ehrenzweig might even be describing the Paolozzi paper: ‘overlapping and

juxtaposition of forms occur which adds to the general ambiguity and doubt, and obstruct the formation of a pregnant and unambiguous gestalt pattern... it becomes exceedingly difficult to decide where the original form pattern begins or ends'.⁷⁷ A ceiling paper, furthermore, suggests a different kind of body relation in addition to those registers of attention already considered, and with this come other unconscious associations. Viewing Mantegna's spatially disorientating 'Dead Christ', its head telescoped towards its feet, is less about observing the triumph of perspective as a rational tool, Ehrenzweig suggested, than about allowing 'the full ambiguity prevailing in the depth mind to intrude into the well-ordered and rational world of thing constancies.'⁷⁸ (Fig. 16) So the eyes viewing an object are situated as much in a particular psychic space as in a particular physical space, and in the 'Dead Christ' that psychic space is generated by the antithetical motivations of Eros and Thanatos. We do not adapt to distortions without consequence; we have in effect repressed them for the sake of another kind of comprehension, an edited version of what we perceive. Speculatively, to perceive in the anti-gestalt mode is to perceive as if after trauma, the life-threatening and the life-renewing both ever constant.

No-one, presumably, lay down on Jenkins's office floor to view Paolozzi's ceiling like modern visitors to the Sistine Chapel, but the idea of lying down, or more specifically lying in bed, is important to Ehrenzweig's argument about wallpaper and its ability to stimulate the unconscious.⁷⁹ To apprehend the ceiling paper, and by extension any of the other ceiling displays of the Independent Group, was to view a surface at ninety degrees to the erect human posture and above eye level. Another way of saying this is to understand the ceiling as topology, whether as Freudian-inflected anti-gestalt (Ehrenzweig) or as a challenge to an aesthetics of geometry and boundedness (Banham). It is also both a shifting and a situated experience, one much

less about mathematics as about intuition, metaphor and estrangement: ‘a brick is the same “shape” as a billiard ball (unpenetrated solid)’, Banham wrote of topology, ‘and a teacup is the same “shape” as a gramophone record (continuous surface with one hole).’⁸⁰ As vertical viewing bodies we are normally at an oblique angle to the ceiling, like one of Gibson’s aviators approaching an airstrip or, perhaps more appositely, approaching the degraded and part reconstructed grid of a city.⁸¹ We can also see the ceiling by reflection, as shown in Henderson’s photograph of Paolozzi, or by lying down and therefore addressing it directly, from the same orientation. Mostly, however, we do not perceive it in any of these ways (or even, doubtless, in the way typified in this article’s opening paragraphs). If we are in the room then it may be peripheral to our attention, peripheral to our sight as it alights on other elements within the more normal range of visual attention – windows, lights, coat hangers, blackboards, and pictures on walls. The modern place of viewing, as Ehrenzweig puts it, is not lying down, static, under another static object; it is about form in process, the ‘constancy of localisation’ as items ‘glide into and from our visual field’.⁸² Of course no object is fixed in any perceptual or psychological register – the foveal, parafoveal, or perifoveal - but some objects are more often in one than another. It is one of ornament’s cultural conditions, particularly in modernity, that it is most often registered as perifoveal, that it accepts and even enables inattentiveness. But the Jenkins ceiling wants more from our attention, it wants to be at least parafoveal. There is something provocative about both its refusal to become form (gestalt) and its refusal to be seen as neutral ornament. Ornament is returned but now broken off or detached, as much from its relation to nature and the hand that thinks (as in Ruskin and Morris) as from its assumed link to mechanical repetition, falsehood and

commodity production (as in Le Corbusier). The ceiling paper contains the ruined fragments of both traditions.

Perhaps, rather than Gibson's pilot trying to decipher the ground beneath him, the ceiling viewer is more like the plane-spotter, neck craning to make out objects in the now-animated lightbox of the clouds above. Or perhaps both pilot and plane spotter, and something else – the indifferent viewer whose attention is elsewhere and who senses a parafoveal, animate surface. It was Ehrenzweig who later described the Paolozzi ceiling as having images of a 'double profile, an aeroplane insect and an architectural grid'.⁸³ This intimates more than an iconography, and it matches better the Independent Group's interest in the 'multi-evocative' sign.⁸⁴ Ehrenzweig's description also indicates a triadic relation of spatial orientations: the vertical (double profile), the floor or table plane (architectural grid), and the zone above our heads (aeroplane insect). One could say something similar about *Parallel of Life and Art* and perhaps other ceiling-orientated works in New Brutalism. Such works soliloquise about the possibilities of the above-our-heads, they say something about the rules and conditions of ornament at the same time as they probe a world-space that does not correspond with the orthogonal orientation of the erect human posture. The ceiling is a parafoveal provocation; 'the evasiveness of the peripheral fringe'⁸⁵ is bound up with the 'dedifferentiation' of the ceiling paper.

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¹ Ronald Jenkins, *Theory and Design of Cylindrical Shell Structures*, London, 1947. Its formidably abstruse mathematical reasoning made it unintelligible to all but a handful of theoretical engineers.

² Arup re-designed his own office at the same time. Both rooms were destroyed when the building was demolished in the early 1960s and the practice re-located a few doors up the street: interview with Derek Sugden, 18 August 2015.

³ Reproduced in Marco Vidotto, *A + P Smithson*, Genoa, 1991, 13.

⁴ The Smithsons' specifications included the provision of a large table and an epidiascope box as well as many small alterations aimed at creating a simpler modern office space: specifications dated 1952, Smithsons family collection, as displayed in *New Brutalist Image, 1949-55*, exhibition at Tate Britain, 24 November 2014 to 4 October 2015.

⁵ For the history of the Independent Group see David Robbins, ed., *The Independent Group: Postwar Britain and the Aesthetics of Plenty*, Cambridge, Mass. and London, 1990; and Anne Massey, *The Independent Group: Modernism and Mass Culture in Britain 1945-59*, Manchester, 1995.

⁶ Ben Highmore suggests their 'disidentification with traditional art education' was what drew them together: Ben Highmore, 'Brutalist wallpaper and the Independent Group', *Journal of Visual Culture*, 12:2, August 2013, 208. This cannot account, however, for writers in the group like Reyner Banham and Lawrence Alloway, and possibly even John McHale.

⁷ Massey, *The Independent Group*, 33-53.

⁸ Reyner Banham, 'The New Brutalism', *Architectural Review*, 118:708, December 1955, 355-61. For *Parallel* see 357, 358; for 'New Art-History' see 355, 358-61; for topology see 361. On topology and other theoretical aspects of Banham's article see Laurent Stadler, '“New Brutalism”, “Topology” and “Image”: some remarks on the architectural debates in England around 1950', *Journal of Architecture*, 13:3, 2008, 263-81.

⁹ That is not to say that related issues of the domestic, the interior, and of course the patterns of everyday life, have not been recognised. Closest to this article is Ben Highmore's article 'Brutalist Wallpaper', which discusses the Independent Group's interest in non-hierarchical 'flat plain' culture

and in how concepts of pattern both embodied and metaphorised that interest: Highmore, 'Brutalist Wallpaper', 205-21. The Paolozzi ceiling paper comes into Highmore's argument as figuring something similar to the new inattention of the crowded media environment. Victoria Walsh has also touched on the Independent Group interest in the decorative, arguing for continuities between *Parallel* and Paolozzi and Henderson's applied arts company Hammer Prints: Victoria Walsh, 'Reordering and redistributing the visual: The expanded "field" of pattern-making in *Parallel of Life and Art* and Hammer Prints', *Journal of Visual Culture*, 12:2, August 2013, 223-43.

¹⁰ Alina Payne, *From Object to Ornament: Genealogies of Architectural Modernism*, New Haven and London, 2012, 86-90.

¹¹ According to Alina Payne, however, ornament's discursive purpose as the 'vehicle to "explain" architecture' and relate its abstractions to the human body did not disappear so much as shift: it was 'cut from its moorings and relocated in the objects that populated architecture's spaces': Payne, *From Object to Ornament*, 8.

¹² On this relation between the modern and the 'rejected or discarded' see Alex Potts, *Experiments in Modern Realism: World Making, Politics and the Everyday in Postwar European and American Art*, London and New Haven, 2013, 171. For related discussion of this issue see Benjamin H. D. Buchloh, *Neo-Avantgarde and Culture Industry: Essays on European and American Art from 1955 to 1975*, Cambridge, Mass. and London, 2000, 141-78.

¹³ Edouard Roditi, *Dialogues on Art*, London, 1960, as republished in Robin Spencer, ed., *Eduardo Paolozzi – Writings and Interviews*, Oxford, 2000, 90. He added that tattooing is not another 'mere' ornament, but a '[compulsion] to exhibit in public [a] private dream world'.

¹⁴ There were other works by Paolozzi at this time in which he addressed the relationship of ornament to modernist architecture, such as 'Collage Mural' (1951) made for the architectural practice of Fry Drew & Partners. Another related body of work addressed ornament and the human body. Among this should be counted Paolozzi's ephemeral cardboard sculptures where robot-like figures were constituted from folded sheets of printed designs, and also perhaps those near performance pieces where Frieda Paolozzi posed for Henderson's camera behind various assemblages of Paolozzi's textile designs. For the former see, for instance, Tate Archive, TGA 9211/8/15/3.; for the latter see, for instance, Tate Archive, TGA 201011/3/1/40/4; TGA 9211/8/15/29

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- ¹⁵ The Smithsons directly related the intended pivotal role of *Parallel of Life and Art* ('[presenting] the opening phase of the movement of our time') to Le Corbusier's pavilion: Alison and Peter Smithson, 'Documents '53', in Robbins, ed., *Independent Group*, 129. This charged connection with the 1925 pavilion also comes through some of the reviews: see Theo Crosby, 'Parallel of Life and Art', *Architectural Design*, 23, October 1953, 297
- ¹⁶ Le Corbusier and Pierre Jeanneret, *Oeuvre complète 1910-1929*, Basel, 1929, 98. For more on the pavilion's manifesto purpose regarding ornament see Payne, *From Object to Ornament*, 1-6.
- ¹⁷ Jan de Heer, *The Architectonic Colour: Polychromy in the Purist Architecture of Le Corbusier*, Rotterdam, 2009, 91.
- ¹⁸ Le Corbusier, *Vers une Architecture* (1924), translated as Le Corbusier, *Towards an Architecture*, Los Angeles, 2007, trans. John Goodman, 102.
- ¹⁹ Le Corbusier, *Towards*, 92.
- ²⁰ See for instance, Le Corbusier, *Oeuvre complete*, 138.
- ²¹ Le Corbusier. 'Polychromie architecturale' (unpublished text of 1931) translated in de Heer, *Architectonic Colour*, 234.
- ²² Nathalie Herschdorfer and Lada Umstätter, eds., *Le Corbusier and the Power of Photography*, London and New York, 2012, 85.
- ²³ For more on this in terms of William Morris see Caroline Arscott, *William Morris and Edward Burne-Jones – Interlacings*, New Haven and London, 2008, 48.
- ²⁴ Anne Massey and Gregor Muir, *Institute of Contemporary Arts 1946-1968*, London, 2014, 75-6; Robbins, ed., *Independent Group*, 21. Paolozzi's links with Giacometti, whom he had known during his Paris years (1947-49), are more than suggestive here. Not only had Giacometti produced table top sculptures, there was also his floor-based sculpture and his city square works, all of which located the viewer as looking from above.
- ²⁵ Whitechapel Gallery, *This is Tomorrow*, London, 1956, unpaginated. The pavilion and its surround were first constructed by Peter and Alison Smithson then left to be completed with objects supplied by Henderson and Paolozzi. 'Decorated' is the term used by Peter Smithson: Beatriz Colomina, 'Friends of the future: A conversation with Peter Smithson', *October*, 94, Fall 2000, 26.
- ²⁶ Art historians have tried to theorise analogous phenomena to this ceiling art of the Independent Group. There is Leo Steinberg's idea of the 'flatbed picture plane', which he used to describe how

other early 1950s artists, like Robert Rauschenberg and Jean Dubuffet, insisted on a ‘radically new orientation’ in which the picture surface became an analogue of assembling processes on the horizontal plane. This was, Steinberg suggested, a shift from ‘nature to culture’. The shift ‘let the world in again’, an urban man-made world of reproduction technologies, a world like the mind, ‘dump, reservoir, switching center’: Leo Steinberg, ‘Other Criteria’, in *Other Criteria – Confrontations with Twentieth-Century Art*, London, Oxford and New York, 1972, 84, 90, 88. Nature, in this reading, was that space normalised since homo erectus lifted himself from earthwards groveling; culture was the ‘field of written signs’ analogised as the printer’s flatbed for setting type: Yve-Alain Bois and Rosalind Krauss, *Formless – A User’s Guide*, New York, 1997, 94. In their Formless project, Krauss and Bois theorized an apparently similar concern with the horizontal plane but now centred on a neo-Batailleian concern with base matter, the turning of the body back towards the earth, and a lowering operation towards an animal vision that sets off various new declassifications, eruptions and rubbings against the grain. I am not subsuming the Independent Group interest in the parafoveal zone of the ceiling to either of these two later American theories. The potential challenge of the ceiling to the fronto-parallel orientation of beholding is, anyway, different from one that seeks to subvert normative verticality by turning to the ground plane. I also want to emphasise what a shortlived phenomenon this was for the British group – it did not develop beyond the handful of works mentioned here and it is barely recognised even by such a sympathetic contemporary critic as Reyner Banham.

²⁷ See Lesley Jackson, *From Atoms to Patterns – Crystal Structure Designs from the 1951 Festival of Britain*, Shepton Beauchamp, 2008; Mary Schoeser, ‘The appliance of science’, in Elain Harwood and Alan Powers, eds., *Twentieth Century Architecture 5 – Festival of Britain*, London, 2001, 117-26.

²⁸ On the disavowal of atomic destruction see Richard Hornsey, *The Spiv and the Architect: Unruly Life in Postwar London*, Minneapolis, 2010, 69-70.

²⁹ I take this to be Toni del Renzio’s contemporary criticism when he commented retrospectively that ‘a lot of what was looked at with wide-eyed amazement simply came out of the very language that was used... it was a bit naïve in its attitude’: Toni del Renzio, in Robbins, ed., *The Independent Group*, 17.

³⁰ Victoria Walsh, ‘Seahorse, grids and calypso: Richard Hamilton’s exhibition-making in the 1950s’, in Mark Godfrey, Paul Schimmel and Vicente Todoli (eds.), *Richard Hamilton*, London, 2014, 62.

³¹ This argument is different from Walsh’s, who sees a strategy of visual punning intent on teasing out contemporary debates in architecture: Walsh, ‘Seahorse’, 66. I am sceptical about this for three

reasons. One is that *Growth and Form* would seem an odd place to do this given the agenda of the exhibition. A second is that Hamilton had not previously espoused interest in these debates. A third is that New Brutalism, which Walsh ties into this ‘punning’, was barely developed as yet: Hunstanton School, its *locus classicus*, was still being built and the first recorded usage of the term New Brutalism would have to wait until 1953.

³² *Man, Machine and Motion* (1955) and *an Exhibit* (1957) could be included as well.

³³ I am thinking here of the material on aviation and submarines shown in the *Man, Machine and Motion* exhibition.

³⁴ An overhead grid of panels in such later Hamilton exhibitions as *Man, Machine and Motion* is an elegant and consistent way of offering more spatial compartments for the material displayed, but the overhead dimension arguably adds nothing to our understanding.

³⁵ Whyte and Hamilton had fallen out over their differing views on how art and science might relate: Walsh, ‘Seahorse’, 65.

³⁶ Herbert Read, ‘Preface’, in Lancelot Law Whyte (ed.), *Aspects of Form*, London, 1951, v.

³⁷ Gombrich’s main criticism of gestalt theory was that there was no place for perception to be shaped by learning and experience. His was the only apparently dissenting voice at the symposium, though his essay ‘Meditations on a hobby horse or the roots of artistic form’ was first published in Whyte’s book. Although the essay seems to ignore the gestalt debate in terms of its language, Gombrich’s argument actually parallels gestalt theory because its central ideas of the ‘conceptual image’ and of representation as the achievement of the ‘functional substitute’ for the exterior world can easily be transferred into the framework of gestalt theory, indeed his work has been called ‘a historicised version of gestalt psychology’: David Summers, ‘Heinrich Wölfflin: *Kunstgeschichtliche Grundbegriffe: Das Problem der Stilentwicklung in der neuen Kunst*, 1915’, in Richard Shone and John-Paul Stonard, eds., *The Books That Shaped Art History*, London and New York, 2013, 47. It is this context of discussion about perceptual psychology that is part of what Reyner Banham was referring to when he wrote that New Brutalism was related to the ‘new art history’. By this he was primarily indicating the work of Rudolf Wittkower and Erwin Panofsky, but so too that of Gombrich (Banham had been instrumental in pushing Gombrich within the ICA, suggesting in 1953 that he deliver a series of lectures on ‘Psychoanalysis and Art’: Tate Archive TGA 955.1.1.12 File 5, Minutes of the Managing Committee of the ICA, 26/11/53) and, we might infer, someone like Anton Ehrenzweig, with whom

Gombrich was in contact even if he did not share Ehrenzweig's approach. Like Gombrich, Ehrenzweig was interested in both the beholder and the artist though he was closer to contemporary artists and based his theories on Freudian psychoanalysis rather than Gombrich's psychology of perception. For his differences from Gombrich see Anton Ehrenzweig, 'Unconscious mental imagery in art and science', *Nature*, 16 June 1962: 1008-1012.

³⁸ J. J. Gibson, 'The visual field and the visual world', *Psychological Review*, 59:2, 1952, 148-51.

³⁹ J. J. Gibson, *The Perception of the Visual World*, Boston, 1950, 6, 120-2.

⁴⁰ For Richard Hamilton's interest in Gibson's work see Richard Yeomans, 'The pedagogy of Victor Pasmore and Richard Hamilton', *Henry Moore Institute Online Papers and Proceedings*, 4 November 2009, <http://www.henry-moore.org/hmi/online-papers/papers/richard-yeomans> (website accessed 16/6/15).

⁴¹ Military analogies and imagery abound: movement of the eyes over the visual environment is equated with the way 'a searchlight moves over a night sky'; a photograph of three men 'surrendering' is used to illustrate 'varieties of texture'; an aerial photograph of bomb craters in a village illustrates 'shapes which are reversed when the picture is inverted'. Wartime experience is normalised by its use as the test bed upon which human capacities can be measured. Perhaps also appealing was the fact that Gibson expressly worked within the tradition of psychophysics, which interested the 1920s modernists too: see Heer, *Architectonic Colour*, 33-43.

⁴² 'Notes toward a chronology based on conversations with the artist', in Anthony d'Offay Gallery, *Nigel Henderson – Paintings Collages & Photographs*, catalogue for an exhibition at Anthony d'Offay, London, 1977, unpaginated.

⁴³ On this issue see also Hornsey, *The Spiv*, 69-70.

⁴⁴ This antagonism to *Growth and Form* was also, at one stage, quite overt. Toni del Renzio, another Independent Group member, had drafted the introduction to the catalogue and this contained criticism of *Growth and Form*. On being asked to make changes by the ICA, the introduction had been withdrawn and del Renzio resigned from the ICA's Exhibition Committee: Minutes of Management Committee of the ICA, 18/8/53 and 7/9/53, Tate Archive TGA 955 1.1.12 File 5. Henderson and Paolozzi were both involved in the early planning of *Growth and Form* and then left the project, seeing it as a product of Hamilton's sensibilities: d'Offay, *Nigel Henderson*, unpaginated.

⁴⁵ Alison and Peter Smithson, *The Charged Void: Architecture*, New York, 2001, 118.

⁴⁶ Text presented in 1952 to the ICA, as quoted in Robbins, ed., *Independent Group*, 129.

⁴⁷ Paolozzi's more conventional cast metal sculpture only hints at what the Jenkins's ceiling and *Parallel of Life and Art* imply for the ceiling plane. 'Icarus' (1949) uses a table top from which objects extend equally below as above, but there is little else that can be linked.

⁴⁸ One example of these are Herbert Bayer's 1930s 'field of vision' diagrams. These have been linked to the Smithsons' early design for *Parallel of Life and Art*: Victoria Walsh, *Nigel Henderson – Parallel of Life and Art*, London, 2001, 93. Henderson was to use warping as a technique in his photography, particularly in his images of boys on bikes, by bending and stretching the printing paper in the enlarger: Walsh, *Nigel Henderson*, 28-30. This, too, may have an ironic connection with the warped images that D'Arcy Thompson used to explain the topological aspect of his 'theory of transformations': D'Arcy Wentworth Thompson, *On Growth and Form*, Cambridge, 1942, 2, 1026-95. In Thompson's terms, it is as if Henderson is asking what other kind of species can a bicycle be transformed into?

⁴⁹ It would also demonstrate the ceiling was finished before *Parallel of Life and Art* had really got underway. A further example of the linkage between the two projects is that *Parallel* was financially underwritten by Arup and Jenkins: Minutes of the Management Committee of the Institute of Contemporary Arts, 28/1/53, Tate Archive TGA 955 1.1.12 File 5.

⁵⁰ Minutes of the Management Committee of the Institute of Contemporary Arts, 28/1/53, Tate Archive TGA 955 1.1.12 File 5.

⁵¹ Again, this link with and difference from high modernism was explicit in the early planning: Walsh, *Nigel Henderson*, 90.

⁵² Nigel Henderson, 'Lecture notes', Tate Archive TGA 9211.5.1.5.

⁵³ D'Offay, *Nigel Henderson*, unpaginated.

⁵⁴ Reyner Banham, 'Parallel of life and art', *Architectural Review*, 114, 1953, 259. In the gallery guide visitors were informed that the image was titled 'In a 1910 Gymnasium'. It was taken from Oliver Jensen, *The Revolt of the American Women*, New York, 1952, 142-3.

⁵⁵ Smithsons, *The Charged Void*, 118.

⁵⁶ 'Indications of a new visual order' was the subheading for *Parallel of Life and Art* in an early press release: Tate Archive TGA 9211.5.1.2.

⁵⁷ Eduardo Paolozzi to Jane Drew, undated letter in RIBA Drawings Collection, F&D/6/1.

⁵⁸ Anton Ehrenzweig, *The Hidden Order of Art: A Study in the Psychology of Artistic Imagination*, London, 1967, 100. A little later, in the design of the catalogue for *Parallel of Life and Art*, Henderson and Paolozzi similarly insisted upon a lack of closely-stipulated design - 'The idea was to make use of other people's unconscious skills and not to fall into the hands of designers': d'Offay, *Nigel Henderson*, unpaginated. On the history of gestalt theory see Mitchell G. Ash, *Gestalt Psychology in German Culture, 1890-1967: Holism and the Quest for Objectivity*, New York, 1995.

⁵⁹ Ehrenzweig, *Hidden*, 100.

⁶⁰ Ehrenzweig, *Hidden*, caption for figure 4. An example of one print which was cut up and included in the ceiling is Paolozzi's 'Untitled (Brutalist Head)' (c. 1951). This includes the same Paisley shape with a ring of dots inside it as occurs several times in the ceiling: for a reproduction see Beth Williamson, *Between Art Practice and Psychoanalysis Mid-Twentieth Century*, Farnham, 2015, 68.

⁶¹ See Richard Williams, *After Modern Sculpture – Art in the United States and Europe 1965-70*, Manchester, 2000. Ehrenzweig claimed that his work had been used by American abstract expressionist painters 'as proof that American painting more than any other type of painting was inspired by unconscious phantasy': Anton Ehrenzweig, 'A new psychoanalytical approach to aesthetics', *British Journal of Aesthetics*, 2:4, 1962, 316.

⁶² Williamson, *Between*, 59-93.

⁶³ Anton Ehrenzweig, *The Psycho-Analysis of Artistic Vision and Hearing*, London, 1953, xi. The book republishes two earlier and shorter studies: Anton Ehrenzweig, 'Unconscious form creation in art parts 1 and 2', *British Journal of Medical Psychology*, 21:3, 1948, 185-214; and Anton Ehrenzweig, 'Unconscious form creation in art. Parts 3 and 4', *British Journal of Medical Psychology*, 22:1-2, 1949, 88-109.

⁶⁴ Ehrenzweig, *Psycho-Analysis*, vii.

⁶⁵ This is a point made in an earlier essay by Ehrenzweig: Anton Ehrenzweig, 'Unconscious form-creation in art. Parts I and II', *The British Journal of Psychology*, 21, 1948, 201.

⁶⁶ Ehrenzweig, *Psycho-Analysis*, vii. This has parallels to Sigmund Freud's strictures on the technique of the psycho-analyst, specifically the need to adopt an 'evenly suspended attention ... in the face of all that one hears': Beth Williamson, 'Paint and pedagogy: Anton Ehrenzweig and the aesthetics of art education', *Rebus*, 2, 2008, 17. Williamson also points out that Freud's ideas on the analyst's mode of

attention were particularly taken up by Marion Milner, with whom Ehrenzweig worked closely. The article, however, is mainly concerned with Ehrenzweig's later work.

⁶⁷ For the storehouse analogy see Kurt Koffka, 'On the structure of the unconscious', in *The Unconscious: A Symposium*, New York, 1928, 65, as quoted in Harry Francis Mallgrave, *The Architect's Brain: Neuroscience, Creativity, and Architecture*, Chichester, 2010, 89-90.

⁶⁸ Ehrenzweig, *Psycho-Analysis*, 52.

⁶⁹ Ehrenzweig, *Psycho-Analysis*, 23-4.

⁷⁰ Ehrenzweig, *Psycho-Analysis*, 24.

⁷¹ Ehrenzweig, *Psycho-Analysis*, 24-25. The more stylistic argument for this linkage with contemporary art had been made by Banham in his 1955 article, but there were also structural – even proto-structuralist – arguments. Here are the Smithsons - '[structural design and recent art have led] to the consideration of the parts not as simply acting, but as things in themselves with their own internal disciplines complexly acting in a total system of forces': Alison and Peter Smithson, *Ordinariness and Light: Urban theories 1952-60 and their application in a building project 1963-1970*, London, 1970, 86.

⁷² Harold Rosenberg, 'The American action painters', *The Tradition of the New*, New York, 1959, 34 (first published in *Art News*, December 1952). Rosenberg's essay was well-known to Independent Group members: Ben Highmore, 'Rough poetry: *Patio and Pavilion* revisited', *Oxford Art Journal*, 29:2, February 2006, 269-90.

⁷³ Rosenberg, 'The American action painters', 34.

⁷⁴ Highmore, 'Rough poetry', 280.

⁷⁵ Ehrenzweig, *Psycho-Analysis*, 24.

⁷⁶ On these forms of collaboration see Williamson, *Between*, 60, 81-90. There was nothing consistent in Paolozzi and Henderson's anti-gestalt stance, as demonstrated by the fact that some of their work has been encompassed within gestalt frameworks.

⁷⁷ Ehrenzweig, *Psycho-Analysis*, 23-5.

⁷⁸ Ehrenzweig, *Psycho-Analysis*, 182.

⁷⁹ Ehrenzweig, *Psycho-Analysis*, 25.

⁸⁰ Banham, 'New Brutalism', 361.

⁸¹ Some of Paolozzi's other wallpapers are more explicit in their likeness to urban grids: 'Coalface' (1951), for instance, which was, aptly, illustrated in *Architectural Review*, October 1952.

⁸² Ehrenzweig, *Psycho-Analysis*, 187.

⁸³ Ehrenzweig, *Hidden*, caption to plate 4.

⁸⁴ Henderson used it in his 1953 lecture to the Architectural Association: Walsh, 'Reordering and redistributing', 240. Lawrence Alloway used the term in several articles: see, for instance, Lawrence Alloway, 'Eduardo Paolozzi', *Architectural Design*, April 1956, 133. Victoria Walsh has shown how the term originated in David Sylvester's writing: Walsh, 'Reordering and redistributing', 240.

⁸⁵ Ehrenzweig, *Psycho-Analysis*, 206.